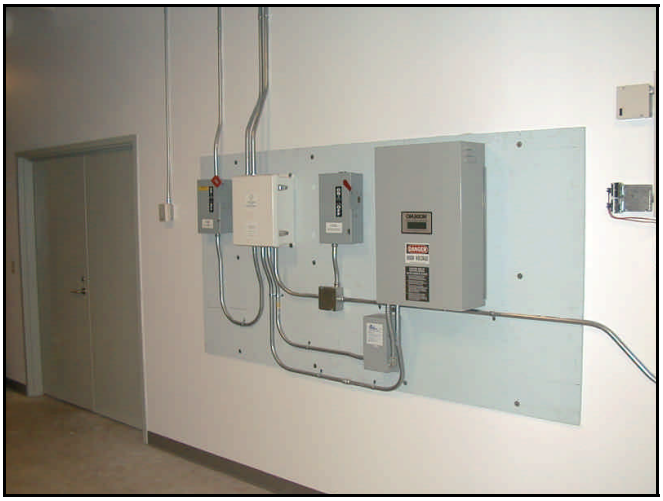
Facility Power Case Study

Wisconsin Housing and Economic Development Authority (WHEDA)

201 West Washington Avenue
Madison, Wisconsin
(Dane County)

Contact Person:	Larry Krom, L & S Associates
Contact Number:	608.588.7231
System Supplier:	Ascension Technology
System Installer:	Ascension Technology
PV System Cost:	$ 71,331
Installation Date:	August 1997



System Components:

array	5.6 kW ASE Americas ASE-285 (24 modules)
inverter	Series 2400 Omnion Power Engineering Co.
other	Campbell Scientific datalogger, weather instrumentation, and modem.
loads	Utility-tied (grid-interactive) PV system inter-connected at an electrical distribution panel on the customer side of the utility meter.

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General Comments:

- PV system provides energy and coincidental demand reduction to offset the loads of an eight-story office building.
- Owned and operated by the Wisconsin Housing and Economic Development Authority (WHEDA).
- This project was co-funded by a State Grant from the Wisconsin Energy Bureau (Department of Administration).
- Measured energy output regularly exceeded 40 kWh(ac) /day in the spring of 1999. The total monthly energy output from the system during March 1999 was 1,006 kWh(ac).
- The PV array utilizes a ballasted support structure on a rubber membrane (EPDM) roof. A ballasted array does not require roof penetrations.
- Routine maintenance is performed by building engineering personnel.
- Monthly PV performance and weather data is collected by a datalogger on a 15-minute basis. The cumulative data is downloaded via modem every month.
- System tours are given to engineers, architects, building managers, "trade" workers, and others as part of an on-going educational effort to showcase re-newable energy options for buildings.